Travis County Waste Diversion Program

2014

This report presents solid waste management activities including but not limited to operational waste diversion programs, household hazardous waste, community outreach and Keep Austin Beautiful activities. The report breaks down how each material is managed sustainably followed with highlights of department recycling contributions in Fiscal Year 2014.

A Collaborative Effort of Waste Diversion by Travis County and its Citizens

FY2014 PERFORMANCE AND PROGRESS

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EXECUTIVE SUMMARY

What is Waste Diversion?

The United States Environmental Protection Service (EPA) defines waste diversion as the prevention and reduction of generated waste through source reduction, recycling, reuse, or composting. Waste diversion generates a host of financial, social, and environmental benefits including conserving energy, reducing disposal costs, and reducing the burden on landfills and other waste disposal methods.

Highlights

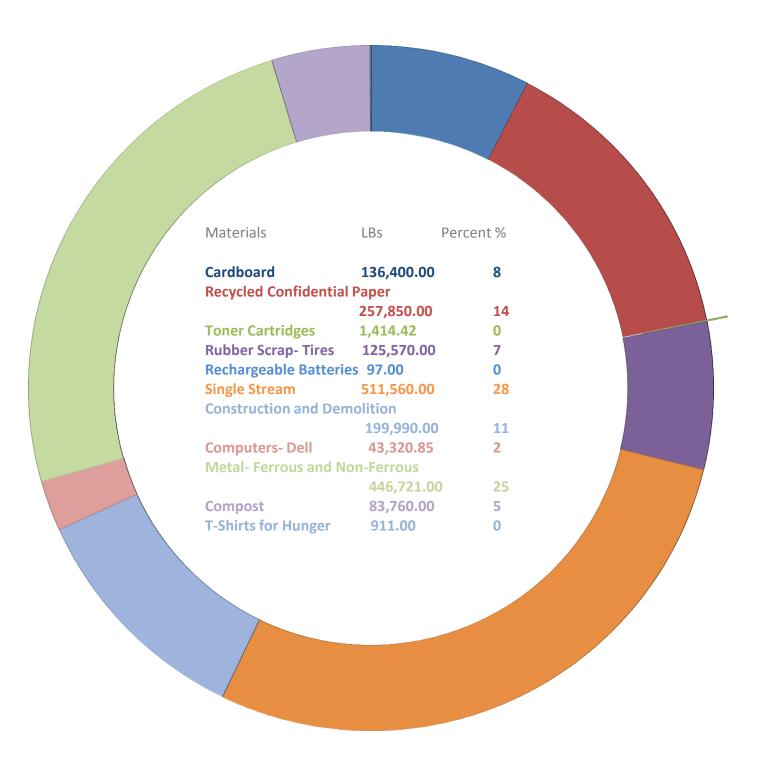
Travis County has made significant strides in the past year; some highlights include:

- 26% of Office Depot purchases were recycled content.
- Collectively, recycling programs generated revenue of \$83,534 including electronics recycling revenue of \$35,608.39
- Travis County had an increase of \$14,951 in revenue from FY 2013.
- Single stream recycling has increased by 10% from 2013 levels. This past year, the County recycled 256 tons.
- As shown in Table 1, Travis County waste diversion activities resulted in 1,807,594 lbs. of material diverted or recycled from operation sources.
- Our vendors, Texas Disposal Systems, Texas Facilities Commission, and Balcones Recycling continue to support Travis County by providing training and outreach.

New initiatives in FY 2014 included a Toner Ambassador Program, Public Battery Recycling Sites, Earth Day Fair and execution of the Zero Waste Inter-local Agreement with the City of Austin. The Single Stream Recycling services received approval from the Commissioners Court for on-going funding to support the program.

In the past ten years, Travis County's population has grown along with the cities within it. There are strong initiatives focused on conservation and resource management being implemented in the county seat, Austin. Waste management is now only one piece of a holistic outlook on examining how a government can save resources and be fiscally responsible. Travis County is a jewel that has great potential for growth in green initiatives.

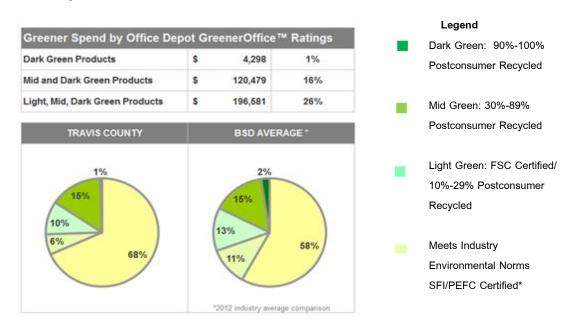
Material Recycled or Diverted from Travis County Operation Sources in 2014



Purchasing Goals:

The County's purchasing goal (see Section 111.005 of the Travis County Waste Management Policy) is to spend at least eight percent of its annual consumables budget (such as office supplies) on materials with recycled content or that provide some other specific conservation benefit. To be considered, these materials must also meet the program feasibility criteria for cost and operational efficiency.

Travis County's purchasing policy is constrained to evaluate cost savings but not environmental benefits. Development of a comprehensive tracking methodology to verify compliance with the recycling goal has not been developed by the Travis County Purchasing Office. However, it is possible to gage recycled content based upon external information provided by one significant vendor: Office Depot (OD). In FY 2014, 26% of purchases from OD included recycled content of significance¹. The figure below shows the OD expenditures by "greenness" rating and by percent of recyclable content. Numerical values are cumulative.



Additionally, the County is actively pursuing opportunities to purchase recycled products form vendors beyond Office Depot, as described in this annual report and including:

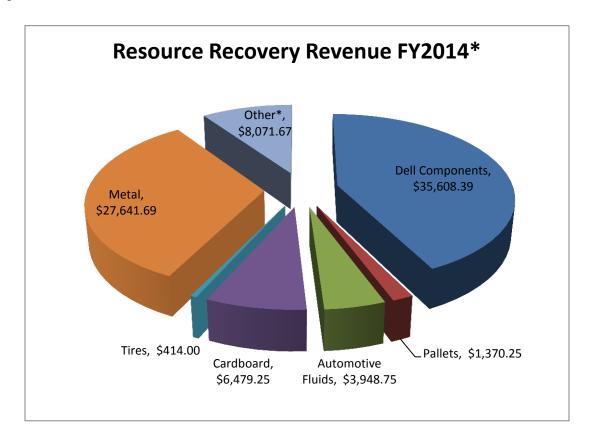
- Re-manufactured toner cartridges
- Re-fined Oil
- Re-refined antifreeze

¹ This information is provided by Office Depot's Green Business Review report for FY 2014. To be considered significant, a commodity has 10% or greater recyclable content. The report includes expenditures including ink/toner, and copy paper.

^{*} Most paper in the United States is SFI/PEFC certified. SFI- Sustainable Forestry Initiative; PEFC- Programme for the Endorsement of Forest Certification.

County Resource Recovery

Travis County's waste streams are very diverse. Many of these items are captured and managed as commodities and recycled. This report reviews the main categories of recyclable materials. In the FY 2014, recycled revenue contributions of \$83,534 were directed to Travis County general funds.²



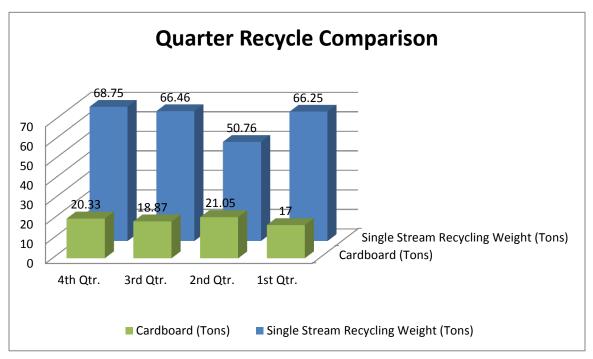
² The recycling revenue total is \$45,790.16 posted in 1490110001 (TNR) and \$37,744.00 posted in 1150010001 (Purchasing electronics and metal from warehouse). *An additional \$8,071.67 was received according to SAP accounting but is not reflected in the project records.

Resource Recovery Materials

Single Stream Recycling

Recycling from 1996 to 2012 focused on specific departments/divisions that volunteered to participate in a recycling program, missing some large quantity generators of recyclable waste. Facilities/buildings throughout our organization were not comprehensively examined for the potential of implementing a holistic recycling program. On January 8, 2013, the Commissioners Court approved funds establishing a single-stream recycling program for all Travis County work locations.

Since April 1, 2013, Texas Disposal Systems (TDS) and Texas Facilities Commission (TFC) are the providers for single-stream pickup services for Travis County work locations except for the administrative building³ serviced by Balcones Recycling These recycling services offers the opportunity for all employees to access consistent recycling services.



1. Travis County operational recycling includes cardboard and single stream.

³ Balcones recycling provides services to the Travis County owned compactor at the Administrative Building.

Travis County recycled 250 tons of single stream material in FY 2014⁴. It will take further time to fully implement the program through infrastructure and education due to staffing limitations. There is not a current employee participation program such as a Green Leader Program which would advance infrastructure and education. To increase the amount of recycling by employees, there needs to be more department involvement. Issues to be addressed include contamination, such as trash going into recycling containers.

In contrast to recycling, Travis County spent an estimated \$167,341.42⁵ in FY 2014 on waste that was destined for landfill disposal. The County, through Records Management Division, purchased an estimated *96 tons* of paper for business use. An additional amount of paper (that is not accounted for in data accessible for this report) was purchased by other departments, mailed to us, or filed with the County. In FY 2014 the County recycled *129 tons of paper* material⁶ through confidential management. Even with the data gap of not knowing our total County paper generation, the amount recycled is a very high diversion rate.

⁴ This tonnage is based on the combination of Texas Facilities Commission estimated weight of 97 tons, Texas Disposal Systems estimated weight of 124 tons, Balcones 34.72 tons plus cardboard recycling of 77.25 tons.

⁵ The Planning and Budget office's report stated that the total spent with Waste Management was \$176,955.18.

⁶ Confidential paper recycling is the total from Iron Mountain shredding, as well as shredded paper picked up by Records Management & recycled at Balcones Resources. The estimated tons of paper purchased are based on records management department orders.

Corrugated Cardboard

Travis County recycled 77.25 tons of corrugated material in FY 2014⁷. The Travis County Del Valle Correctional Facility currently is the only revenue-generating location for cardboard. The County rents a vertical cardboard baler that is operated by staff and inmates. The location generates on average 6 tons a month for estimated revenue in FY 2014 of \$6,479.25.



2. Baled cardboard from the Del Valle Correctional Facility.

Several county facilities generate large quantities of cardboard which is recycled through single stream recycling. The Health and Human Services (HHSVS) Community Centers generate a substantial amount of cardboard each week. To capture this cardboard for revenue, HHSVS would need to collaborate with other departments to transport the material.

⁷ The total recycled cardboard includes material picked up by vendor (Texas Disposal Systems). The County receives 86% of the revenue (based on tonnage) using the Official Board Market, SW Region Index.

Metals

This program has been very successful throughout the County and especially at the Transportation and Natural Resources satellite offices, Purchasing Assets Warehouse and the Correctional Complex. Vendor roll-offs are placed at Assets Warehouse, Eastside Service Center, Westside Service Center, and Del Valle Correctional Facility, and Weatherization. In FY 2014, an estimated total of 446,721 pounds of metal were recycled for estimated revenue of \$27,641.69.



1. A photo of the inside of a roll-off filled with tinplate steel cans collected for recycling by the kitchen staff at the Del Valle Jail.



3. Travis County Tax office receives license plates from the public; the plates are rendered unusable & then recycled.

In office settings, Travis County recycles aluminum cans by placing them in the single stream recycle carts. By placing aluminum cans in the single stream recycle carts it is mixed with other recyclable materials, the amount generated/recycled is not measured, and this aluminum does not generate revenue directly.

Automotive

Oil & Antifreeze

Travis County recycled 4,302 gallons of used oil and 220 gallons of antifreeze in FY 2014 generating \$3,948.75 in revenue and avoiding disposal costs. Travis County also purchases and uses re-refined oil and antifreeze in all County vehicles.

The following quote from a TCEQ used oil brochure sums up the value of this program: Only one gallon of used oil is needed to produce 2.5 quarts of lubricating oil, whereas 42 gallons of crude oil would be needed for the same 2.5 quarts of oil. Refining used oil takes 70% less energy than refining crude oil."

Used Oil Filters

A registered transport company must properly dispose of the oil filters collected by fleet services. Travis County recycled 10 barrels of spent oil filters in FY 2014. Used oil filters are banned from Texas landfills.



4. Tires are a continuous issue in the rural areas due to illegal dumping.

Tires

Travis County's vendor is Reliable Tire. Reliable removes fleet tires and those collected from illegal disposal along county right-of-way and charges \$0.11 per pound. In FY 2014 the County spent \$13,842.40 removing approximately 125,570 lbs. These tires are taken to registered tire recycling centers.

Lead-Acid Batteries

There were 387 vehicle batteries recycled in FY 2014, preventing lead and acid waste in these batteries from adversely affecting the county's groundwater, surface water, and the public's health.

Electronics

Cell Phones

The Travis County surplus warehouse collects all phones that are not picked up by inmates once released. These phones are then internally transferred to the Sheriff's Office Victim Services Unit for use in supporting their program.



5. Travis County Purchasing Assets Warehouse manages the computers and processes them for the program.

Computers and Monitors

The Travis County Purchasing Office has an agreement with Dell, Inc. to take-back all Dell manufactured equipment for recycling or reuse. Travis County receives a portion of the revenue from the electronics Dell recycles. In FY 2014, this revenue was \$35,608 for 43,320.85 lbs. of electronics.

Composting

Pre-consumer Food Scraps

This year the composting program was managed on an as-needed basis. The compost created supports the on-site, 3.5 acre organic garden. The garden was not in production due to the installation of the new Tilapia farm.



6. Composting of animals collected from the "right of way".



7. Post-consumer composting at Del Valle Correctional facility.

Animal Composting

The animal composting program has implemented to save costs on transportation of dead animals collected from the "right of way". Travis County staff uses compostable bags for collection. The animals are placed in a roll-off with a mulch cover which then is composted by the vendor. The vendor uses this compost for soil additives sold at stores. The total amount of material diverted was 42 tons.

Wood Material

Pallets

The Del Valle Correctional Facility, Eastside and Westside Service Centers are the current locations for recycling of pallets. The Del Valle Correctional Facility collects unneeded pallets from all Sherriff's Offices facilities. The vendor picks them up once there is an adequate number collected. The pallets are then graded for payment based on the material's value to be sold, repaired or mulched. This past fiscal year there were 2,634 pallets collected for revenue of \$1,370.25.



8. Pallets collected at Del Valle Correctional Complex.



9. Mulch created from "right of way" tree trimming.

Woody Debris

In Travis County, the TNR Parks Division, FMD Groundskeeping Division, and TNR Road & Bridge Division maintain lawns, trees, shrubs, rights of way, and other landscaping in their day-to-day activities. The Facility Grounds Division collects clippings and woody debris by truckload and delivers it to the contracted landfill to be utilized in the landfill's compost program. The TNR Parks Division arborist cuts dead trees and then chips them into mulch. The mulch is utilized on-site for trees. Trimmings from Road & Bridge Division right of way work contributes to mulch used for the animal composting program.

Textiles

Several of the departments in Travis County utilize textiles in their day-to-day services. The jail's warehouse manager currently finds many different ways to re-use the material onsite such as cutting large towels into smaller pieces for wash cloths. In the future, the County will continue to work on ways to quantify their diversion methods.



10. An overflowing container with gently used donated T-shirts.

T-Shirt for Hunger Project

T-Shirts for Hunger – a program in partnership with the Travis County Sheriff's Correctional Department and Travis County Community Food Banks – collects used, unwanted t-shirts from the community and works with Correctional facility inmates to gain skills in sewing by transforming the t-shirts into reusable bags that are then given to Travis County area food banks.

Plastic Film

Currently Travis County facilities that receive the single-stream recycling service can recycle a wide range of plastics, but not plastic film. In 2013, the Del Valle Correctional facility began collecting all plastic film generated at their site. They are baling the plastic using a grant funded baler.



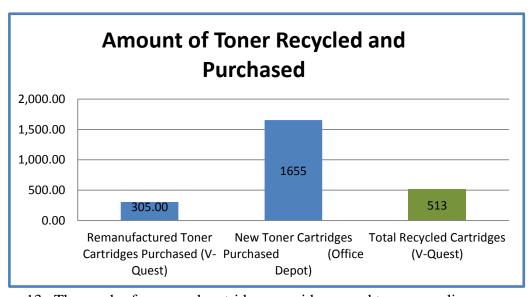
11. Southeast Metro Park and Reimers Ranch Park collect plastic film for recylcing.



12. Del Valle bales all plastic film generated from their facility.

Toner Cartridge Recycling

Travis County purchases remanufactured cartridges when compatible with the printing/copying equipment. V-Quest, one of our office supply vendors, provides a service to reuse and recycle used cartridges from departments/divisions when requested. The Xerox printers are managed by a separate vendor for maintenance and toner supplies, but no current information is available on vendor recycling. In September 2014, a new Toner Ambassador Program was created to encourage a higher recycling participation rate and generate revenue.



13. The vendor for re-used cartridges provides a used toner recycling program.

Hazardous Chemicals

Travis County operations generate paint, batteries, mercury containing products and herbicides. Waste is generated along our roadway system. A contract is in place to remove hazardous and special wastes from County rights-of-way (ROW) and from county facilities.

Universal Waste

This year, TNR in cooperation with FMD started a program to properly dispose of fluorescent light bulbs, ballasts, and batteries. Veolia, Travis County's mail back vendor, recycles the items for their precious metals and chemicals. The non-recyclable products are disposed of properly.





14. Fluorescent light bulbs and batteries at the maintenance warehouse are collected for proper disposal.

This program initiative represents progress in diverting mercury-containing waste from going to a landfill. The program is a mail-back system with containers for each specific item, including light bulbs, batteries, ballasts, and thermostats. Once the container is full it is returned to the vendor for proper disposal. The cost of disposal is included in the container price. Travis County purchased containers for the Sheriff's Office and the Chief Clerk's Elections Division to manage the material for a total cost of \$3,780.

Citizen Programs and Employee Outreach

Employee Outreach

Recycling Assessments

A recycling assessment is a meeting to discuss of what services the department/division provides current Travis County conservation programs, and a tour of their office space. Once the meeting occurred, a report and resource packet for that particular office space is provided. There were 13 recycling assessments performed at Travis County facilities during FY 2014.



16. A recycling container being used as a table at the Jail.



15. An aluminium can found in the trash side of a dual stream container at the County Administrative Building.

Presentations

During the FY 2014, there were fourteen presentations to County Staff on recycling programs. There was an estimated direct outreach to an estimated 350 people.

Household Hazardous Waste Participation 25,000 20,000 Households 15,000 10,000 5,000 2007 2006 2008 2009 2010 2011 2012 2013 2014 **COA HHW Participation** 8,501 9,114 12,323 12,106 13,037 13,787 15,870 17,694 15,298 Travis HHW Particpation 1,264 1,408 1,972 2,383 1,735 1,826 1,876 2,249 2,635

Household Hazardous Waste Program

Travis County continues to maintain an inter-local agreement with the City of Austin under which County constituents can use the City's hazardous waste collection facility and the County pays for a full time employee and a percentage of the disposal costs.

In FY 2014, 2,635 constituents used the facility ensuring proper disposal of their hazardous waste instead of disposal into household trash, into the sanitary sewer, or illegal dumping. The total cost for disposal in FY 2014 is \$46,810.39. The county also funds one full time employee for a total personnel cost of \$58,616.77.



18. Staff takes items from a citizen dropping off chemicals.



17. Staff opens a paint bucket to evaluate if it can be used for Austin ReBlend.

The facility has been mandated by the City of Austin Resource Recovery Director to increase diversion as much as possible. In FY 2014 the facility increased diversion from 38.69% to 41% One of the diversion initiatives is the increase in the re-use of good latex paint through Austin ReBlend. The facility inspects and evaluates the latex paint that is dropped off for disposal. If the paint is deemed good for reuse, it is re-blended and then given out to the public for free.







19. The above photographs are a demonstration of the ReBlend process. The facility collects good latex paint in 55 gallon drums, then mixes the paint for an average of 45 minutes, and pours it into 3 gallon buckets.

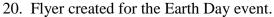
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⁸ The Household Hazardous Waste Facility has a re-use store for the public to pick up usable material at no cost. This allows for the facility to re-coup some expenses associated with the facilities operation.

Earth Day Fair

Each year, Earth Day is celebrated nationally to mark the anniversary of the beginning of the modern environmental movement when over 20 million Americans took to the streets, parks, and auditoriums to express their support for a healthy, sustainable environment. The first Earth Day held in 1970. The sentiments and advocacy for protection of America's environment, exemplified by Earth Day, contributed to the creation of the United States Environmental Protection Agency and the passage of the Clean Air, Clean Water, and Endangered Species Acts.







21. There were twenty vendor booths for the staff to learn about environmental resources.

With that same spirit of living in a healthy, sustainable environment in mind and in celebration, Travis County TNR, in partnership with the Travis County Sheriff's Office and Health and Human Services, celebrated Earth Day in 2014 with 240 attendees. At the event there were twenty partner organizations and county vendors hosting booths with helpful information to encourage staff to be better stewards of our workplaces and planet.

Community Programs

In FY 2014 Travis County supported two community programs promoting conservation, the Lake Travis Underwater/Shoreline Clean-up and Christmas Tree Recycling. The Lake Travis Underwater/Shoreline Clean-up is a cooperative effort between Travis County, Keep Austin Beautiful and the Colorado River Foundation. This year there were more than 750 volunteers collecting material at twenty clean-up sites. There was a total of 3.3 tons of trash collected.



22. Volunteers unloading the "trash barge" that had collected trash from the divers.



23. Every year the organizers develop a logo with "Finley the Fish" to be placed on media materials.

Christmas Tree Mulch Program

The Travis County Christmas Tree recycling program continued in FY 2014 to provide the county residents a way to properly dispose of their trees. The county provides two sites: Del Valle Softball Field and near RR 620 at Low Water Crossing Rd. TNR utilizes the trees as mulch. This past year, 503 Christmas Trees were collected. The City of Austin also provides a site at Zilker Park open to everyone with no residency requirement. The City of Austin partners with the county in providing the county drop-off locations on their website.



25. Christmas tree recycling site open to the public.



24. Flyer provided to inform residents on the program.

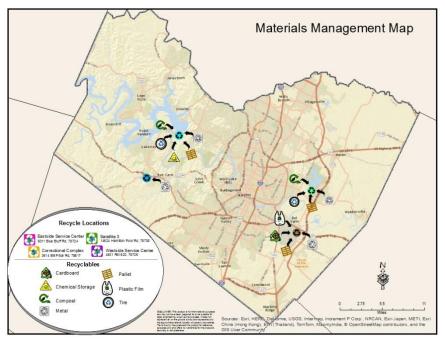
Keep Austin Beautiful & Anti-litter Education Program Partnership

Keep Austin Beautiful is a non-profit organization whose mission is to provide resources and education to engage citizens in building more beautiful communities. During the FY 2014 reporting period, Keep Austin Beautiful was involved in many activities including, but not limited to:

- Facilitated 424 community cleanups utilizing 19,520 volunteer hours, and removing 56 tons of trash;
- Organized eight cleanups in the Onion Creek area after the severe Halloween floods, involving 585 volunteers;
- Led the Annual Clean Sweep event. During the event, 4,350 volunteers worked at 134 sites in Travis County and collected 20 tons of trash;
- Coordinated the Lake Travis Underwater Cleanup. During the event, 750 volunteers worked at 21 sites along the lake and collected 3.3 tons of trash;
- Managed 118 cleanups of Lady Bird Lake, with 4,769 volunteers and removing 33,996 pounds of trash;
- Presented environmental education lessons to students and community groups, educating 9,684 students and youth including Bailey Middle School, Decker Middle School, Manchaca Elementary School, St. Gabriel's Catholic School and St. Stephen's Episcopal School located in the Travis County Unincorporated Area:
- Directed a Patch Pals program for scout troops and youth groups to promote cleanups and environmental stewardship. A total of 2,366 youth participated in the program;
- Sponsored the Good Sports Always Recycle program that promoted recycling at Travis County Area schools and recognized six campuses, including St. Stephen's Episcopal School, for their recycling and campus beautification initiatives;
- Participated in 28 community events including environmental, neighborhood, college and corporate fairs, distributing Keep Austin Beautiful educational materials;
- Distributed a monthly email newsletter to over 6,964 individuals and companies and a weekly volunteer newsletter to 1,046 individuals and groups; and
- Partnered with Travis County, The City of Austin, Texas Commission on Environmental Quality, Keep Texas Beautiful and Keep America Beautiful to raise awareness and educate the community about the importance of implementing environmentally wise practices which ultimately improve the quality of life for all Central Texans.

Conclusions

The County's operations are complex and diverse, requiring the purchase, use and disposal of a wide array of products and materials. This requires an extensive, collaborative effort involving various County departments, and the efforts of individual County employees. These individuals help us to develop management practices that are much more efficient and reduce adverse environmental impacts associated with County operations. A variety of methods are being used to avoid unnecessary waste disposal costs while at the same time ensuring that hazardous materials (oil, antifreeze, etc.) are not unnecessarily disposed of or released to the environment.



26. Principal Travis County Material Recycling Locations.

The waste management program is an essential tool for managing these materials in ways that satisfy the policy directives of the Commissioners Court. The FY 2014 performance and progress results demonstrate compliance with the requirements of the waste management policy. Collectively, recycling programs generated revenue of \$83,534 including electronics recycling revenue of \$35,608.39 (which was not previously tracked in the annual reports); we had an increase of \$14,951 in revenue from FY 2013. These efforts produce public and environmental benefits that far exceed the monetary value of recycling revenues and avoided disposal costs.

In the past ten years, Travis County's population has grown along with the cities within it. There are strong initiatives focused on conservation and resource management being implemented in the county seat, Austin. Waste management is now only one piece of a holistic outlook on examining how a government can save resources and be fiscally responsible. Travis County is a jewel that has great potential for growth in green initiatives. There is opportunity for improvement through recycling participation, energy conservation initiatives and other conservation practices.

Appendix 1 - 3

Travis County Sheriff's Office

The Del Valle Correctional facility has many sustainable initiatives implemented: composting and recycling program. The staff at the facility is encouraged to be innovative in being fiscally responsible through implementing green initiatives.



27. Inmates rolling fence at Del Valle Correctional Complex.



28. Cardboard baled by inmates for recylcing.

The Del Valle recycling program has been in effect since 1991 when they began by collecting loose cardboard by the trailer load. In 2002 they began bailing the cardboard which increased the revenue price the total for FY2014 was \$6,479.25.

Purchasing Department

The Purchasing Office supports many different activities including management of the thousands of items classified as fixed assets. These assets range from electronics, vehicles, equipment, and office products. When these items are obsolete or no longer useful for a department the items are transported and managed by the Fixed Assets division of the Purchasing Office. Fixed assets are classified as either capital assets (assets with a useful life greater than one year and a value greater than \$5,000) or low value assets (assets with a value less than \$5,000 that must be secured and tracked because of liability issues).

Currently the County has contracts with three auction houses for selling surplus equipment. Some auctions are held online. Anyone can participate in the bidding process. All proceeds go to the Travis County general fund. Any of the items the Purchasing Agent declares as waste is then managed in cooperation with Transportation and Natural Resources to be recycled. The Assets Warehouse currently recycles Dell components, metal, plastic material and single stream material.



29. Dell components in processed for takeback.



31. Plastic seat inserts no longer usable are recycled.



30. Accessories to the computers are included in the revenue share take-back program.



32. The County is provided a roll-off by the contracted metal recycler for all waste metal items.

TNR Parks Division

The TNR Parks Division has been very active in implementing new waste reduction practices into their parks. Currently there is single stream recycling at seven popular parks. The parks with frequent events have event recycling containers to provide to event coordinators. Reimer's Ranch, Hamilton Pool Park, and Northeast Metro Park continued to recycle with strong participation. East Metro, Richard Moya, Southeast Metro began a single stream recycling program.



33. A container to collect plastic film for recylcing.



34. Recycle containers at Reimers Ranch Park.

In 2014, two of the parks began collecting plastic film and recycling it at Ecology Action. Parks Division also properly disposes of all batteries, light bulbs and ballasts through participation in the Universal Waste program.

Travis County Parks also partnered with Ecology Action and Americorps program to beautify Southeast Metro Park by removing illegally dumped material. There was 427 hours donated for the project.



36. Southeast metro before the clean-up.



35. The site at Southeast Metro after brush and litter (metal, glass, tires) were removed.